CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET SACRAMENTO, CA 95814-5512 www.energy.ca.gov



NOTICE OF PROPOSED AWARD (NOPA)

GFO-15-308 Groups 1 to 4

Reducing Costs for Communities and Businesses Through Integrated Demand-Side Management and Zero Net Energy Demonstrations February 2, 2016

On September 23, 2015, the California Energy Commission released a competitive solicitation titled "Reducing Costs for Communities and Businesses Through Integrated Demand-Side Management and Zero Net Energy Demonstrations" under the Electric Program Investment Charge (EPIC) Program. The purpose of this solicitation is to fund research, development and demonstration to help overcome technical and other barriers that prevent achievement of the State of California's goals for increasing energy efficiency in existing buildings and setting zero net energy targets for new and existing buildings. Each application was required to fall within one of six applicable project groups. Up to \$34 million in EPIC funding is available for grants awarded under this solicitation. This NOPA identifies selected projects for Groups 1 to 4. The NOPA for Groups 5 and 6 was posted on December 28, 2015.

The Energy Commission received fourteen proposals for Group 1, six proposals for Group 2, four proposals for Group 3, and four proposals for Group 4 by the due date of November 20, 2015. The proposals were screened, reviewed, evaluated and scored using the criteria in the solicitation.

The attached "Notice of Proposed Award" identifies the Applicants that are recommended for funding by Energy Commission staff and includes the recommended funding amount and score. The total amount recommended for Group 1 is \$5,088,683. The total amount recommended for Group 2 is \$2,955,811. The total amount recommended for Group 3 is \$1,000,000. The total amount recommended for Group 4 is \$1,000,000.

Funding of the proposed projects resulting from this solicitation is also contingent upon the approval of the projects at a publicly noticed Energy Commission Business Meeting and execution of a grant agreement. If the Energy Commission is unable to timely execute a funding agreement with the Applicant, the Energy Commission, at its sole discretion, reserves the right to cancel or otherwise modify the pending award.

This notice is being mailed to the Applicants of this solicitation and is also posted on the Energy Commission's website at: www.energy.ca.gov/contracts/.

For information, please contact Cory Irish at (916) 654-4739 or cory.irish@energy.ca.gov.

Cory IrishCommission Agreement Officer



Reducing Costs for Communities and Businesses Through Integrated Demand-Side Management and Zero Net Energy Demonstrations

Notice of Proposed Awards Groups 1 to 4 February 2, 2016

Group 1: Applied Research and Development: Emerging Building Technology and Approaches for Existing Buildings

Rank Number	Project Applicant	Project Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Group 1 Prop	oosed Awards						
1	Lawrence Berkeley National Laboratory	Integrated Whole-Building Zero Net Energy Retrofits for Small Commercial Offices	\$2,000,000	\$2,000,000	\$2,000,000	90.52	Awardee
2	The Regents of the University of California, Berkeley	Integrating Smart Ceiling Fans and Communicating Thermostats to Provide Energy-Efficient Comfort	\$1,888,683	\$1,888,683	\$315,926	84.24	Awardee
3	The Regents of the University of California, Davis	Energy Efficient HVAC Packages for Existing Residential Buildings	\$1,200,000	\$1,200,000	\$126,000	82.43	Awardee
Total Funding Recommended			\$5,088,683	\$5,088,683	\$2,441,926		
Group 1 Pass	sed But Not Funded						
4	The Regents of the University of California, Davis	Pilot-Scale Evaluation of an Integrated Building Control Retrofit Package	\$1,999,089	\$0	\$263,927	79.79	Passed but not funded
5	Electric Power Research Institute, Inc.	Advanced Commercial Refrigeration Energy Efficiency Retrofits	\$1,977,767	\$0	\$198,478	78.66	Passed but not funded
Total			\$3,976,856	\$0	\$462,405		



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Group 1 Did	Group 1 Did Not Pass								
	Project Applicant	Project Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status		
	The Regents of the University of California, Irvine	Pilot Test of Innovative Integrated Demand Side Management Software Package with Distributed Energy Resource Control Capability	\$503,060	\$0	\$100,000		Did Not Pass		
	Universal Devices, Inc.	Energy Efficiency using Low Cost Grid Sensitive Energy Management, Automation, and Measurement & Verification Framework	\$1,099,335	\$0	\$104,668		Did Not Pass		
	Verdigris Technologies	Quantifying the Efficacy of Device-Level Disaggregation in a Mixed-Use Facility for Demand-Side Management Savings	\$500,000	\$0	\$0		Did Not Pass		
	Clean Power Research, LLC	Demonstrating Cost-Effective Zero Net Energy in Existing Low-Income Homes	\$1,500,000	\$0	\$295,275		Did Not Pass		
	Community Corporation of Santa Monica	Ocean Avenue Zero Net Energy Retrofit Demonstration Project	\$500,000	\$0	\$1,300,000		Did Not Pass		
	Design AVEnues LLC	HomeEco- Operation Trojan Horse	\$519,300	\$0	\$0		Did Not Pass		
	GAF	Deep Building Retrofits Employing Passive Envelope Systems, Active Integrated Heat Pumps and Smart Controls	\$1,790,998	\$0	\$336,026		Did Not Pass		
	Energeia USA	Enabling ZNE through PV Integrated Thermal Storage Solutions	\$1,644,658	\$0	\$0		Did Not Pass		



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	Chemergy, Inc.	HyBrTec pilot to evaluate hydrogen and electricity production from variety of organic building produced wastes to increase building efficiency and achieve zero net energy buildings	\$1,422,350	\$0	\$2,361,150	Did Not Pass
Total			\$9,479,701	\$0	\$4,497,119	



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Notice of Proposed Awards Groups 1 to 4 February 2, 2016

Group 2: Applied Research and Development: Emerging Technology Pilots for Zero Net Energy New Buildings

Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Group 2 Prop	oosed Awards						
1	Gas Technology Institute	Measure Results from Affordable Zero Net Energy Homes	\$1,000,000	\$1,000,000	\$168,500	83.10	Awardee
2	Build It Green	Optimizing Water Heating Performance for Multifamily ZNE	\$1,955,811	\$1,955,811	\$290,090	80.28	Awardee
Total Fund	Total Funding Recommended			\$2,955,811	\$458,590		
Group 2 Did	Not Pass						
	Robert Bosch LLC	Bosch NightBreeze Smart Building System	\$1,930,394	\$0	\$85,205		Did Not Pass
	Arzon Solar, LLC	Revolutionary and BIPV CPV product pilot for new levels of building daylighting, energy efficiency and solar energy generation	\$1,912,677	\$0	\$922,585		Did Not Pass
	California State University, Long Beach Research Foundation	Distributed, Secure Management and Control System for Zero Net Energy New Buildings	\$1,160,792	\$0	\$0		Did Not Pass
	Irvine Unified School District	Active Green Roof for Passive Cooling and Heating	\$647,740	\$0	\$797,740		Did Not Pass
Total			\$5,651,603	\$0	\$1,805,530		



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Notice of Proposed Awards Groups 1 to 4 February 2, 2016

Group 3: Applied Research and Development: Develop Cost-Effective Approaches to Achieve California's Zero Net Energy Buildings Goals

Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Group 3 Prop	oosed Awards						
1	Lawrence Berkeley National Laboratory	Pathways to More Cost-Effective ZNE Homes	\$1,000,000	\$1,000,000	\$50,000	83.43	Awardee
Total Fund	ding Recommended		\$1,000,000	\$1,000,000	\$50,000		
Group 3 Pass	sed But Not Funded						
2	Electric Power Research Institute, Inc.	Applied Research and Development: Cost-Effective Approaches to Achieve California's Zero Net Energy Buildings Goals	\$1,000,000	\$0	\$251,000	81.84	Passed but not funded
3	The Regents of the University of California, Davis	Cost-Effective Approaches to ZNE Subdivisions: An evaluation of infrastructure options and off-site renewables	\$999,949	\$0	\$79,255	79.81	Passed but not funded
4	Signature Development Group	ZNE Technical and Cost Assessment for Brooklyn Basin	\$549,254	\$0	\$0	73.22	Passed but not funded
Total			\$2,549,203	\$0	\$330,255		



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Group 4: Applied Research and Development: Zero Net Energy Cost-Effectiveness Models by Climate Zone for Multifamily and Commercial Buildings

Rank Number	Project Applicant	Title	Energy Commission Funds Requested	Energy Commission Funds Recommended	Match Funds	Score	Award Status
Group 4 Prop	oosed Awards						
1	The Regents of the University of California, Davis	Cost-constrained Optimization of Energy Efficiency for Multifamily and Commercial Buildings	\$1,000,000	\$1,000,000	\$105,000	84.42	Awardee
Total Fun	ding Recommended		\$1,000,000	\$1,000,000	\$105,000		
Group 4 Pas	sed But Not Funded						
2	Lawrence Berkeley National Laboratory	Development of Cost Effective Zero-Net Energy Models for New Multifamily and Commercial Buildings		\$0	\$0	78.48	Passed but not funded
3	The Regents of the University of California, Davis Campus-California Lighting Technology Center	An Optimized, ZNE Technology Portfolio for California Markets	\$996,170	\$0	\$0	75.62	Passed but not funded
4	Resource Refocus LLC	Multifamily and Commercial Zero Net Energy Building Packages- Optimized for Energy and Cost in the 16 California Climate Zones	\$999,990	\$0	\$0	74.24	Passed but not funded
Total			\$2,996,160	\$ 0	\$0		
Grand Total			\$34,698,017	\$10,044,494	\$10,150,825		